

## REMARKS

The Office Action dated January 6, 2005 has been received and carefully considered. In this response, claims 1, 5, 7, 20, 22, 46-48, 51, 52, 55, 59 and 62 have been amended and claims 3, 4, 6, 9, 10, 18, 19, 21, 24, 53, 54, 63 and 64 have been canceled without prejudice. Support for the amendments to the claims can be found in the specification and figures as originally filed. Reconsideration of the outstanding rejections in the present application is respectfully requested based on the following remarks.

### Defective Declaration

The declaration was objected to as being defective because the filing date of the parent application is incorrect. A corrected declaration has been prepared and will be submitted promptly upon its execution by the Applicants.

### Anticipation Rejection of Claims 1 and 30-32

At page 2 of the Office Action, claims 1 and 30-32 were rejected under 35 U.S.C. Section 102(e) as being anticipated by Saha (U.S. Patent No. 6,404,817). This rejection is respectfully traversed.

Claim 1, from which claims 30-32 depend, has been amended to substantially recite the features of dependent claims 19 and 21. Claim 1 presently recites the features of receiving transformed error correction data, determining if at least one of an underflow error or an overflow error of the transformed error correction data has occurred, and providing an error indicator when it is determined at least one of an underflow error or an overflow error has occurred. The Office Action acknowledges that Saha does not disclose these features. *See Office Action*, p. 5. Accordingly, Saha fails to disclose each and every feature of amended claim 1, as well as each and every feature of claims 30-32 at least by virtue of their dependency from claim 1. Moreover, these claims recite additional features not disclosed by Saha.

In view of the foregoing, it is respectfully submitted that the anticipation rejection of claims 1 and 30-32 is improper at this time and the withdrawal of this rejection therefore is respectfully requested.

**Obviousness Rejections of Claims 2, 3, 9, 10, 12-18, 24 and 26-29**

At page 4 of the Office Action, claims 2, 3 and 18 were rejected under 35 U.S.C. Section 103(a) as being unpatentable over Saha in view of Paik (U.S. Patent No. 5,216,503). At page 9 of the Office Action, claim 9 was rejected under 35 U.S.C. Section 103(a) as being unpatentable over Saha in view of Paik and further in view of Elkind (U.S. Patent No. 5,832,003). At page 8 of the Office Action, claims 10, 12-14, 17, 24, 26 and 27 were rejected under 35 U.S.C. Section 103(a) as being unpatentable over Saha in view of IBM-TDB (IBM TDB-ACC-NO: NN9405527). At page 10 of the Office Action, claims 15, 16, 28 and 29 were rejected under 35 U.S.C. Section 103(a) as being unpatentable over Saha in view of Paik and IBM-TDB and further in view of Lamport (U.S. Patent No. 5,138,615). These rejections are respectfully traversed.

Claims 3, 9, 10, 18 and 24 have been canceled. Claims 2, 12-17, 26-30 depend from claim 1. As noted above, claim 1 has been amended to recite the features of determining if at least one of an underflow error or an overflow error of the transformed error correction data has occurred, and providing an error indicator when it is determined at least one of an underflow error or an overflow error has occurred. The Office Action acknowledges that neither Saha nor Paik discloses or suggests these features. The Office Action does not assert that Elkind or IBM-TDB disclose these features, nor can these features be found in the teachings of Elkind or IBM-TDB. Accordingly, the proposed combinations of Saha, Paik, Elkind and IBM-TDB fail to disclose or suggest each and every feature of claims 2, 12-14, 17, 26 and 27 at least by virtue of their dependency from claim 1. Moreover, these claims additional features neither disclosed nor suggested by Saha, Paik, Elkind or IBM-TDB.

For example, claims 16 and 29 recite the additional features of wherein a driver is used to perform the polling. The Office Action asserts that the passage of Lamport at col. 36, lines 38-40 discloses these features and notes that "the pseudocode is consider[ed] a driver." *Office Action*, p. 11. However, Lamport provides no disclosure or suggestion that the "Hardware Polling Routine" of Lamport is a driver in any way and it therefore is respectfully submitted that the Examiner's consideration of the "pseudocode" as a driver finds no support in the disclosure of Lamport or in the knowledge of one of ordinary skill in the art.

In view of the foregoing, it is respectfully submitted that the obviousness rejections of claims 2, 3, 9, 10, 12-18, 24 and 26-29 are improper at this time and the withdrawal of these rejections therefore is respectfully requested.

**Obviousness Rejection of Claims 4-8, 11, 19-23, 25 and 33-36**

At page 5 of the Office Action, claims 4-8, 11, 19-23, 25 and 33-36 were rejected under 35 U.S.C. Section 103(a) as being unpatentable over Saha in view of Paik and further in view of Matsunoshita (U.S. Patent No. 5,835,691). This rejection is respectfully traversed.

Claim 1 has been amended to substantially recite the features of dependent claims 19 and 21 (now canceled). Accordingly, claim 1 presently recites the features of receiving transformed error correction data, determining if at least one of an underflow error or an overflow error of the transformed error correction data has occurred, and providing an error indicator when it is determined at least one of an underflow error or an overflow error has occurred. With respect to claims 4 and 6, the Office Action acknowledges that neither Saha nor Paik disclose error types including overflow errors (claim 19) or underflow errors (claim 21) and instead relies on Matsunoshita as disclosing these features. *Office Action*, p. 5. Specifically, the Office Action relies on Figures 2 and 5 and the passages of Matsunoshita at col. 12, lines 32-36 and col. 17, lines 11-16. *Id.*

The Applicants submit that, contrary to the assertions of the Office Action, Matsunoshita fails to disclose or suggest that errors in transformed error correction data include overflow errors or underflow errors. In fact, Matsunoshita fails to disclose transformed error correction data in any manner. Accordingly, the proposed combination of Saha, Paik and Matsunoshita fails to disclose or suggest the features of determining if at least one of an underflow error or an overflow error of the transformed error correction data has occurred, and providing an error indicator when it is determined at least one of an underflow error or an overflow error has occurred as recited by claim 1.

Moreover, Saha and Paik are directed to video encoding and decoding (such as MPEG video), whereas Matsunoshita is directed to receiving image data "on a page-by-page basis," compressing and storing the image data and detecting underflow/overflow of a code buffer used to buffer the compressed image data. Matsunoshita does not contemplate in any manner video encoding or decoding. One of ordinary skill in the art would find no motivation to modify the

video encoding/decoding systems of Saha and Paik to incorporate the underflow/overflow detection techniques for the image compression system of Matsunoshita. Thus, not only does the proposed combination of Saha, Paik and Matsunoshita fail to disclose or suggest each and every feature of amended claim 1, there is no motivation to combine the teachings of Matsunoshita with the teachings of Saha and Paik.

Claims 4, 6, 19 and 21 have been canceled. The proposed combination of Saha, Paik and Matsunoshita fail to disclose or suggest each and every feature of claims 5-8, 11, 20, 22, 23, 25 and 33-36 at least by virtue of their dependency from claim 1. Moreover, these claims recite additional features neither disclosed nor suggested by the cited references.

In view of the foregoing, it is respectfully submitted that the obviousness rejection of claims 4-8, 11, 19-23, 25 and 33-36 is improper at this time and the withdrawal of this rejection therefore is respectfully requested.

#### **Obviousness Rejection of Claims 37, 46 and 57**

At page 5 of the Office Action, claims 4-8, 11, 19-23, 25 and 33-36 were rejected under 35 U.S.C. Section 103(a) as being unpatentable over Saha in view of Elkind and Mounes-Toussi (U.S. Patent No. 6,615,375). This rejection is respectfully traversed.

Claim 37 recites the features of determining if an error has been found in transformed data, determining if the error is associated with a set of protected data and identifying a channel associated with the error if the error is associated with a set of protected data. The Office Action acknowledges that Saha does not disclose these features. *Office Action*, p. 11. The Office Action instead relies on the passage of Mounes-Toussi at col. 2, lines 34-47 as disclosing "detecting (and recovering from) errors in protected data and relies on the passage of Elkind at col. 2, lines 66-67 as disclosing "identifying channels associated with errors." *Id.*, p. 12. However, it is respectfully submitted that neither the cited passage nor any other passage of Mounes-Toussi discloses or suggests protected data in any manner, much less determining if an error found in transformed data is associated with a set of protected data as provided by claim 37. Accordingly, the proposed combination of Saha, Elkind and Mounes-Toussi fails to disclose or suggest each and every feature of claim 37.

Claim 46 has been amended to substantially recite the additional features of dependent claims 53 and 54 (now canceled). Claim 46 presently recites the features of a program of instructions to manipulate a data processor to determine if an underflow error or an overflow error has occurred, wherein the underflow error or overflow error is related to transformed correction data, and apply corrective measures when an underflow error or an overflow error has occurred. The Office Action acknowledges that Saha, Mounes-Toussi and Elkind fail to disclose these features. See Office Action, p. 20. Accordingly, it is respectfully submitted that the proposed combination of Saha, Elkind and Mounes-Toussi fails to disclose each and every feature of amended claim 46, as well as each and every feature of claim 57 at least by virtue of its dependency from claim 46.

In view of the foregoing, it is respectfully submitted that the obviousness rejection of claims 37, 46 and 57 is improper at this time and the withdrawal of this rejection therefore is respectfully requested.

#### **Obviousness Rejections of Claims 38-45, 47-56 and 58**

At page 13 of the Office Action, claims 38, 39 and 48-52 were rejected under 35 U.S.C. Section 103(a) as being unpatentable over Saha in view of Mounes-Toussi and Elkind and further in view of Lamport. At page 15 of the Office Action, claims 40, 43, 44, 47, 55 and 56 were rejected under 35 U.S.C. Section 103(a) as being unpatentable over Saha in view of Mounes-Toussi and Elkind and further in view of Lamport. At page 16 of the Office Action, claims 41 and 42 were rejected under 35 U.S.C. Section 103(a) as being unpatentable over Saha in view of Mounes-Toussi and Elkind and further in view of Vanstone (U.S. Patent No. 6,141,420). At page 18 of the Office Action, claims 45 and 58 were rejected under 35 U.S.C. Section 103(a) as being unpatentable over Saha in view of Mounes-Toussi, Elkind and Matsunoshita and further in view of Sampson (U.S. Patent No. 6,490,624). At page 19 of the Office Action, claims 53 and 54 were rejected under 35 U.S.C. Section 103(a) as being unpatentable over Saha in view of Mounes-Toussi, Elkind and Lamport and further in view of Matsunoshita. These rejections are respectfully traversed.

Claims 38-45 depend from claim 37. Claim 37 recites the features of determining if an error has been found in transformed data, determining if the error is associated with a set of protected data and identifying a channel associated with the error if the error is associated with a

set of protected data. The Office Action acknowledges that Saha does not disclose or suggest these features and, as discussed above, Mounes-Toussi and Elkind do not disclose or suggest these features. The Office Action does not assert that Lamport, Matsunoshita, Sampson or Vanstone disclose or suggest these features. Accordingly, it is respectfully submitted that the Office Action fails to establish that the proposed combinations of Saha, Mounes-Toussi, Elkind, Matsunoshita, Sampson or Vanstone discloses or suggests each and every feature of claims 38-45 at least by virtue of their dependency from claim 37. Moreover, these claims recite additional features neither disclosed nor suggested by the cited references.

Claims 53 and 54 have been canceled. Claims 47-52, 55, 56 and 58 depend from claim 46. Claim 45, as amended, recites the features of a program of instructions to manipulate a data processor to determine if an underflow error or an overflow error has occurred, wherein the underflow error or overflow error is related to transformed correction data, and apply corrective measures when an underflow error or an overflow error has occurred. The Office Action acknowledges that Saha, Mounes-Toussi and Elkind fail to disclose these features. The Office Action instead relies on the teachings of Matsunoshita and Lamport as allegedly disclosing these features. However, as discussed above with respect to claim 1, Matsunoshita fails to disclose or suggest determining if an underflow error or an overflow error related to transformed correction data has occurred. As also disclosed above, there is no motivation to combine the teachings of Matsunoshita with the teachings of Saha, Mounes-Toussi, and Elkind as proposed by the Office Action. Accordingly, the Office Action fails to establish that the proposed combination of Saha, Mounes-Toussi, Elkind, Matsunoshita and Lamport discloses or suggests each and every feature of claims 47-52, 33, 56 and 58 at least by virtue of their dependency from claim 46. Moreover, these claims recite additional features neither disclosed nor suggested by the cited references.

In view of the foregoing, it is respectfully submitted that the obviousness rejections of claims 38-45, 47-56 and 58 are improper at this time and the withdrawal of these rejections therefore is respectfully requested.

#### **Obviousness Rejections of Claims 59-69**

At page 21 of the Office Action, claims 59, 62, 65 and 66 were rejected under 35 U.S.C. Section 103(a) as being unpatentable over Saha in view of Matsuoka (U.S. Patent No. 4,599,608). At page 23 of the Office Action, claim 60 was rejected under 35 U.S.C. Section

103(a) as being unpatentable over Saha in view of Matsuoka and Shirley (U.S. Patent No. 5,657,277) and further in view of Paik. At page 25 of the Office Action, claim 61 was rejected under 35 U.S.C. Section 103(a) as being unpatentable over Saha in view of Matsuoka, Shirley, and Paik and further in view of Elkind. At page 26 of the Office Action, claims 63, 64, 67 and 69 were rejected under 35 U.S.C. Section 103(a) as being unpatentable over Saha in view of Matsuoka and Shirley and further in view of Matsunoshita. At page 28 of the Office Action, claim 68 was rejected under 35 U.S.C. Section 103(a) as being unpatentable over Saha in view of Matsuoka and Shirley and further in view of IBM-TDB. These rejections are respectfully traversed.

Claim 59 has been amended to substantially recite the additional features of dependent claims 63 and 64 (now canceled). Claim 59 presently recites the features of a memory having an I/O buffer coupled to the I/O buffer of the data processor, the memory capable of storing code to control said data processor to determine if an underflow error or overflow error has occurred, wherein the underflow error or overflow error is related to transformed error correction data and apply corrective measures when an underflow error or overflow error has occurred. As similarly discussed above with respect to claim 46, none of Saha, Elkind, Paik, Matsunoshita or IBM-TDB disclose or suggest at least these features. The Office Action does not assert that Shirley or Matsuoka discloses or suggests at least these features. Accordingly, the Office Action fails to establish that the proposed combinations of Saha, Elkind, Paik, Matsunoshita, IBM-TDB, Shirley and Matsuoka disclose or suggest each and every feature of claim 59, as well as each and every feature of claims 60-62 and 65-69 at least by virtue of their dependency from claim 59. Moreover, these claims recite additional features neither disclosed nor suggested by the cited references.

In view of the foregoing, it is respectfully submitted that the obviousness rejections of claims 59-69 are improper at this time and the withdrawal of these rejections therefore is respectfully requested.

#### **Conclusion**

It is respectfully submitted that the present application is in condition for allowance, and an early indication of the same is courteously solicited. The Examiner is respectfully requested to contact the undersigned by telephone at the below listed telephone number in order to expedite

resolution of any issues and to expedite passage of the present application to issue, if any comments, questions, or suggestions arise in connection with the present application.

The Commissioner is hereby authorized to charge any fees that may be required, or credit any overpayment, to Deposit Account Number 50-0441.

Respectfully submitted,

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Date



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